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EXAMINER

LIEW, ALEX KOK SOON

ART UNIT	PAPER NUMBER
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2624

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/720,799

Applicant(s)

HANNA ET AL.

Examiner

Alex Liew

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-32 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 20 recites the limitation "... in which the processor means is operable when selected *rules are satisfied* to produce ..." on lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim.

Assuming, that claim 20 is dependent on claim 17, claim 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 13 – 15, 16, 21 – 25, 29 and 32 are rejected over U.S.C. 103(a) as unpatentable over Fuchs (US pat no 6,418,475) in view of Irons et al. (US pat no 6,427,032).

With regards to claim 1, Fuchs discloses an image management system connected to receive messages from a plurality of image producing devices coupled to a network, the image management system comprising

- a plurality of storage devices, each storage device having cost and operating characteristics which differ from the other storage devices (see figure column 1 lines 57 – 59 – the storage devices listed operates differently from one another and each have its own price tag, also see figure 2 – each jukeboxes 22 – 25 maybe different depending on where / when the jukeboxes are install),
- means for receiving over the network from image producing devices which contain image data (see figure 2 – the images received at each file server are distributed from a server of distributors, 15 and 16),
- a buffer for storing image data in a received coupled to the means for receiving (see figure 18 – the file server are where the images are stored temporary until it is decided on where the image data will be store) and
- storing said image data to one of plurality of storage device based on whether or not a storage medium is full (see column 1 lines 43 – 45).

Fuchs stores the image data into each jukeboxes based on whether or not if the jukebox is full, but does not archives image data based on metadata of the image data. Fuchs suggests having image datasets relocated based on the patient data (see column 3 lines 11 – 13). Irons et al. discloses archiving document image using designated file

identifier (see figure 7 – 726 – the file identifier was extract from the document label, where the label defines the features / elements of the document).

One skill in the art would include steps of archiving document image using designated file identifier or metadata because to allow users to use assigned identifier to retrieve the desired image documents, which save searching time, which is a well known motivation in image retrieval (MPEP 2144.03).

Fuchs' invention, shown in of figure 2, with figure 2 – 18 – 21 file servers modified by Irons et al.'s archiving means, disclose the claimed invention of claim 1.

With regards to claim 2, an extension from the rejection from claim 1, Irons et al. discloses storing the metadata in database (see column 20 lines 5 – 10).

With regards to claim 13, Fuchs discloses relocating image data based on patient data (see figure 1 – the different imaging systems captures images of the patient), a patient study (the images taken by the imaging systems will be study to look for disease such as cancer), patient body part (parts or all of the body parts are recorded according to the type of disease) and modality (the modality are the different types of imaging systems), but does not disclose metadata being a series, modality and procedure type. However, metadata are those which identifies the information and features of its medical images, so it is obvious to include metadata including a series and procedure type, which information well known in the medical area. One skill in the art would include procedure type as metadata because to allow doctors to search for images

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based on the types of disease being search using imaging systems, so the doctors will be able to find proper images to perform procedures on the images retrieved.

With regards to claims 16, 21, 24, 25, 29 and 32, see the rationale and rejection for claim 1.

With regards to claims 14 and 15, Fuchs discloses all the limitations discussed in claim 2, but does not disclose the date / time and identities of requesting users who are trying to access information data. However, it is well known in the art of image retrieval to record the time and identities of users who are trying to access database information (MPEP 2144.03). One skill in the art would include the time and identities of users who try to access database information because to keep track of people who may force access on the information in the database, to increase security of the storage system.

With regards to claims 22 and 23, see the rationale and rejection for claims 14 and 15.

3. Claims 3 – 12, 17 – 19, 26 – 28, 30 and 31 are rejected over U.S.C. 103(a) as unpatentable over Fuchs ('475) in view of Irons et al. ('032) as applied to claim 1 further in view of Jamroga et al. (US pat no 6,574,742).

With regards to claim 3, Fuchs discloses all the features and elements discussed in claim 1, but do not disclose determining whether images received from the network are

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authorized images. Jamroga et al. discloses enterprise authority manager coupled to the means for receiving, the enterprise authority manager storing information on each image producing device authorized to store images in the image management system, and being operable to determine if the a image received over the network is from an authorized image producing device (see column 13 lines 3 – 12 – at the warehouse level, the system check the integrity of the images received from the central database, details shown in figure 5 – 37). One skill in the art would include steps of authenticating image data received from a network because to prevent defective or harmful programs attached with images received from entering the management system, improving security of stored images already stored in database.

With regards to claim 4, an extension to the arguments from rejection of claim 3, Jamroga et al. discloses an enterprise authority manager stores information indicative of the data type appropriate for an authorized image producing device (see figure 1 – those images taken from the central database are images taken from authorized image producing device).

With regards to claim 5, an extension to the arguments from rejection of claim 4, Jamroga et al. discloses means for receiving also includes means for receiving messages over the network from users requesting access to stored images and associated stored metadata, and in which the enterprise authority manager stores information indicative of authorized users (see figure 1 – the enterprise managers are

those which controls the central database and the authorized users are the participant from the medical institutions connected to the central database).

With regards to claim 6, an extension to the arguments from rejection of claim 5, Jamroga et al. discloses the enterprise authority manager is operable to deny access to unauthorized users (see figure 1 – the unauthorized users are those that are not included in the participant institution).

With regards to claim 7, Fuchs discloses all the limitations discussed in claim 1, but does not disclose storing *plurality of rules* which identifies different actions to be performed and storing medical images into different storage devices according to the type of medical images. Fuchs does teach plurality of rules, which stores medical images according to the amount of storage space available in the storage device (see figure 2 – the file server stores medical images into jukeboxes according to amount of storage space, column 1 lines 43 – 46) and Fuchs also discloses relocating image data based on patient data. Jamroga discloses a plurality of storage rules of medical images (see column 13 lines 51 – 57). Fuchs' method of initial storage means according to amount of storage space available modified by methods relocating image data based on patient data and having plurality of rules implemented by system software disclose the claimed invention of claim 7. One skill in the art would include plurality of storage rules because to store images in the proper location, so the stored images are retrieved quickly, to save time.

With regards to claim 8, Fuchs discloses plurality of medical imaging systems such as CT unit, MR unit DSA unit and X-ray unit, which are all used for imaging purposes and the captured images are transmitted in to communication network and stored in image memory system. Each imaging systems take images of the patient, including image data of patient, combined with methods of storing means according to patient data with plurality of rules implemented by system software disclosed by Jamroga disclose the claimed invention of claim 8.

With regards to claim 9, an extension to the arguments to claim 7, Jamroga discloses plurality of participating institutions to access or store medical images. Fuchs and Jamroga disclose the claimed invention of claim 9.

With regards to claim 10, Fuchs and Jamroga disclose a image management system as recited in claim 7, in which the image producing devices include medical imaging systems and one of said parameters is the imaging modality (see figure 1 of Fuchs – shows the plurality of medical imaging systems and Jamroga discloses having plurality of storage rules to store medical image data).

With regards to claims 11 and 12, Fuchs discloses a management system as recited in claim 10, in which one of said parameters is the subject of the image (the images taken are images of patients).

With regards to claim 17, see the rationale and rejection for claim 7.

With regards to claim 18, see the rationale and rejection for claim 11.

With regards to claim 19, Fuchs discloses all the limitations discussed in claim 17, but does not disclose editing storage rules; Jamroga discusses storage rules are implemented by using system software. It is well known in the art to modify system software based on the user's liking and convenience. One skill in the art would include having the user change storage rules because the central database may add more storage devices and it is necessary to change storage rules to store incoming images from participant institutions to store these new images into the new storage devices, to avoid overloading the older storage devices.

With regards to claim 26, see the rationale and rejection for claim 8.

With regards to claim 27, see the rationale and rejection for claim 9.

With regards to claim 28, see the rationale and rejection for claim 11.

With regards to claims 30 and 31, see the rationale and rejection for claim 19.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Liew whose telephone number is (571)272-8623. The examiner can normally be reached on 9:30AM - 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571)272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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5/13/07



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